# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 6,977,151 B2

: December 20, 2005

DATED INVENTOR

INVENTOR(S) : Kayyem et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 67, line 29 thru Column 68, line 64,

Replace all claims with the following:

- 1. A composition comprising:
  - a) an electrode comprising a passivation monolayer comprising nucleic acid probes attached to said electrode with a spacer; and
  - b) a hybridization indicator.
- 2. A composition according to claim 1 wherein said hybridization indicator is an intercalator.
- A composition according to claim 1 wherein said hybridization indicator is methylene blue.
- 4. A composition according to claim 1 further comprising a target nucleic acid hybridized to said probe to form a hybridization complex, wherein said hybridization indicator is associated with said hybridization complex.
- A composition according to claim 1 further comprising a co-reductant.
- A composition according to claim 1 wherein said nucleic acid probe is a single stranded nucleic acid.
- A composition according to claim 1 wherein said nucleic acid probe comprises a double stranded portion.
- 8. A composition according to claim 1 further comprising a soluble electron source.
- 9. A composition according to claim 8 where said soluble electron source comprises ferroyanide.
- 10. A composition according to claim 1 wherein said spacer is a conductive oligomer.
- 11. A composition according to claim 1 wherein said spacer is an insulator.
- 12. A composition according to claim 11 wherein said insulator comprises (CH<sub>2</sub>)<sub>e</sub>.
- 13. A composition according to claim 1 wherein said passivation agent monolayer is an insulator.

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#### Column 67, line 9 thru Column 68, line 64 (cont'd),

- 14. A composition comprising:
  - a) a hybridization indicator, and
  - b) an array of electrodes, each comprising
    - i) a passivation agent;
    - ü) a nucleic acid probe attached to said electrode with a spacer.
- 15. A composition according to claim 14 wherein said hybridization indicator is an intercalator.
- 16. A composition according to claim 14 wherein said hybridization indicator is methylene blue.
- 17. A composition according to claim 14 further comprising a target nucleic acid hybridized to said probe to form a hybridization complex, wherein said hybridization indicator is associated with said hybridization complex.
- 18. A composition according to claim 14 further comprising a co-reductant.
- 19. A composition according to claim 14 wherein said nucleic acid probe is a single stranded nucleic acid.
- 20. A composition according to claim 14 wherein said nucleic acid probe comprises a double stranded portion.
- 21. A composition according to claim 14 further comprising a soluble electron source.
- 22. A composition according to claim 21 where said soluble electron source comprises ferricyanide.
- 23. A composition according to claim 14 wherein said spacer is a conductive oligomer.
- 24. A composition according to claim 14 wherein said spacer is an insulator.
- 25. A composition according to claim 24 wherein said insulator comprises (CH<sub>2</sub>)<sub>6</sub>.
- 26. A composition according to claim 14 wherein said passivation agent monolayer is an insulator.

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#### Column 67, line 9 thru Column 68, line 64 (cont'd),

#### 27. A composition comprising:

- a) an array of electrodes, each comprising a passivation agent monolayer comprising nucleic acid probes attached to said electrode with a spacer, wherein said spacer comprises an insulator; and
- b) a hybridization indicator.

Signed and Sealed this

Twenty-third Day of May, 2006

JON W. DUDAS Director of the United States Patent and Trademark Office